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BEFORE THE BOARD OF PATENT APPEALS AND INTERFERENCES

In re Application of:

Before the Examiner:

John P. Karidis

Christopher B. Shin

Serial No.: 09/756,831

Group Art Unit: 2182

Filed: January 08, 2001

Title: WIDE SCREEN NOTEBOOK

IBM Corporation

INPUT/OUTPUT DEVICE INTERFACE

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Mail Stop Appeal Brief-Patents Commissioner for Patents P.O. Box 1450 Alexandria, VA 22313-1450

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APPEAL BRIEF

Technology Center 2100

I. REAL PARTY-IN-INTEREST

The real party in interest is International Business Machines Corporation, who is the assignee of the entire right and interest in the present Application.

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CERTIFICATION UNDER 37 C.F.R. § 1.8

I hereby certify that this correspondence is being deposited with the United States Postal Service with sufficient postage as first class mail in an envelope addressed to Mail Stop Appeal Brief-Patents, Commissioner for Patents, Alexandria, VA 22313-1450, pn February 23, 2004.

Signature

Serena Beller

(Printed name of person certifying)

II. RELATED APPEALS AND INTERFERENCES

There are no appeals or interferences known to Appellants, the Appellants' legal representative, or assignee which will directly affect or be directly affected by or have a bearing on the Board's decision in the pending appeal.

III. STATUS OF CLAIMS

Claims 1-14 are pending in the Application. Claims 1-14 stand rejected.

IV. STATUS OF AMENDMENTS

There were no amendments to the claims or specification filed after the final rejection.

V. <u>SUMMARY OF THE INVENTION</u>

A notebook computer is disclosed with a keyboard base containing a keyboard and an attached display. The keyboard base is widened (FIG. 1) beyond what is necessary for the keyboard to create a widened I/O area (FIG. 1, element 108). The display is also widened corresponding to the widened keyboard base (FIG. 1, element 103). Correspondence between the widened keyboard base 108 and the widened display are 103 are consistently shown in FIG. 1, FIG. 2 and FIG. 3. In one embodiment, a recessed area (FIG. 1, element 105) is provided within the widened I/O area 108 which has an I/O connection means 104 adapted for a number of removable I/O devices (FIG. 1, element 104). Each of the I/O devices (e.g., FIG. 1, element 106) is operable to electrically connect to the I/O connection means 104. Embodiments of the present invention use an interposer (FIG. 4, element 444) to interface an I/O device with connector means (FIG. 1, element 104) to correct either electrical or mechanical mismatches between an I/O device 106 and recessed area 105 and connection means 104. Specification page 6, lines 13-22.

While the I/O devices may vary in functionality, they are all adapted to physically and electrically connect to the I/O connector. I/O devices may also have software drivers, necessary to interface to the notebook computer, either resident in the I/O device or in the notebook computer. Connection of an I/O device may automatically cause the I/O device drivers to be loaded into the notebook computer from the I/O device 106 or the device drivers may be stored and activated from within the notebook computer itself. The widened display area 103 is used primarily to display a window 111 associated with the operation of a particular I/O device installed in the recessed area 105 in the widened keyboard base and coupled to connection means 104. Specification page 10, lines 13-23 and page 11, lines 13-14. The widened display area 103 may also be used at other times to display multiple windows for normal notebook operation. The presence of an I/O device 106 connected to connection means 104 may be automatically detected by a contact or by a signal sent from the I/O device to the notebook computer. Specification page 8, lines 21-23. The detection of an I/O device 106 connected to connection means 104 automatically brings up window 111 in widened display area 103 which presents information regarding the particular I/O device coupled. Selected I/O devices may have functionality wholly separate from any communication or connection with the notebook computer.

VI. ISSUES

- 1. Are claims 1-14 properly rejected under 35 U.S.C. § 103(a) as being unpatentable over U.S. Patent No. 6,219,227 to *Trane* (hereafter "*Trane*")?
- 2. Are claims 1-14 properly rejected under 35 U.S.C. § 103(a) as being unpatentable over *Trane* in view of U.S. Patent No. 5,568,224 to *Saeguse* (hereafter "Saeguse")?

VII. GROUPING OF CLAIMS

Claims 1-14 are to be considered individually per the reasons set forth in Section VIII.

VIII. ARGUMENT

1. Claims 1-14 are not properly rejected under 35 U.S.C. § 103(a) as being unpatentable over U.S. Patent No. 6,219,227 to Trane (hereafter "Trane").

The Appellant had a telephone interview with the Examiner on December 3, 2003 to discuss the Examiner's conclusions regarding the Appellants' arguments in the response of June 20, 2003. The Appellant discussed at length the differences concerning the claim language of the pending claims which the Appellant feels the Examiner is interpreting beyond what is reasonably allowed according to the M.P.E.P. The Appellant believes the claims are clearly distinguished from the art when the claim language is interpreted according to M.P.E.P. § 2111.01.

There were two main points of contention discussed in the telephone conversation between what the Appellant believes he is claiming and what the Examiner believes prior art *Trane* teaches. The first point has to do with the term "widened" display. In Claim 1 of the present invention, the Appellant recites a notebook computer with a base containing a keyboard for the notebook computer, wherein said base has an extended portion beyond the keyboard creating a widened keyboard base and a widened display, the widened display having a widened I/O display area corresponding to the widened keyboard base and the widened display having a width substantially equal to a width of said widened keyboard base. *Trane* teaches creating a cellular telephone opening above the keyboard. *Trane* further teaches a lid that contains a display device such that the lid can be closed over the keyboard protecting the keyboard and the display device. *Trane* does not teach any specific relationship between the keyboard base, the keyboard, or the cellular telephone inserted into the keyboard base. The Examiner argues that *Trane's* teaching

that any sized display device can be used with his portable computer assembly 10 is the same as the recitation of Claim 1 where the notebook computer has a keyboard base that is widened beyond the keyboard and a widened display having a widened I/O display area corresponding to the widened keyboard base. *Trane* does not teach any correspondence between the widened keyboard base and the display device. By stating that any display may be used with his portable computer assembly, *Trane* is in fact teaching that there is no correspondence between the display device and the keyboard base. *Trane* only states that the lid contains the display device and the lid inhibits damage to the keyboard and the display. The Appellant respectfully asserts that the correspondence between the widened keyboard base and the widened display is recited in Claim 1 of the present invention. The widened display forms the widened I/O display area corresponding to the widened keyboard base. *Trane* has a lid that corresponds to the keyboard base. *Trane* does not teach or suggest any correspondence between the display device in the lid and the keyboard base.

A second key point of the Appellant's interview with the Examiner is relative to the invention of Claim 7. Claim 7 recites all the limitations of Claim 1 with the additional limitation that the widened I/O display area is used to display operational data relative to operation of said I/O device when the I/O device is sending or receiving signals to the notebook computer (of Claim 1). The Examiner states that Trane teaches this limitation and cites Trane's teaching in column 9, lines 44-48. In this recitation, *Trane* states "additionally, the portable computer assembly 10 of the present invention can include an LCD monitoring display (not shown) on the outer casing for providing information, e.g., battery status, power on status, speaker status, etc., to the user of the portable computer assembly 10." The display device of Trane is in the closable lid 36. See Trane column 7, lines 21-35. The outer casing referred to by the Examiner is outer casing 34 which contains the cellular telephone receiving opening 46. See *Trane*, column 5, lines 40-43. Outer casing 34 appears to be equivalent to the keyboard base of the present invention. Therefore, the "LCD monitoring display" of Trane cited by the Examiner is not the same as the widened display of Claim 1 and Claim 7. Further, Trane does not teach or suggest that the cited "LCD monitoring display" is used to display operational data relative to operation of the I/O device when the I/O device is sending or receiving signals to the notebook computer.

Additional comments by the Examiner discussed in the telephone interview were his giving the broadest possible definition to widened display. In his interpretation, the Examiner does not distinguish between width and height of the notebook computer. Clearly, *Trane* distinguishes these two dimensions, the telephone opening 46 is shown above the keyboard 24 and printer 18 and paper tray 20 are added onto each side of keyboard 24. It is important to note that while the printer 18 and the paper tray 20 are added in the width dimension, the base containing the keyboard is not widened as recited in claims of the present invention. These devices are add-ons and as such may be removed.

In the Specification of the present invention, FIGS. 1, 2, 3, and throughout the description of these drawings, the term widened keyboard and widened display are clearly defined and thereby indicate that the present invention uses the term widened in the claims to mean that area of the keyboard base corresponding to the width of the notebook computer. The reason the Appellant used the term widened in the claim language is that it was so clearly and consistently used in the Specification such that any one of ordinary skill in the art would know when they had infringed on the present invention. Any one of ordinary skill in the art would understand that when facing a device, the device's width is in a direction toward a user's arms and height is the direction orthogonal to the width.

In a portable notebook computer that has a closable lid for protecting the keyboard, display and any other sensitive device, the closable lid should be of a size such that it covers the keyboard base. While the display device fits within the lid (if it is to be protected), there is normally no required correspondence between the display size and the size of the keyboard base containing the keyboard and other devices (pointing device). Rather, in this case, the only required correspondence is with

regards to the closable lid; the display device must only fit within the closable lid. Such is the case with the portable computer assembly of *Trane*. The present invention purposely increases the keyboard base by widening the keyboard base to create a widened I/O device area. Although not required, a closable lid (if used with the present invention) would naturally also be widened so that the closable lid would cover and protect the I/O device of the present invention. At this point, the display device does not have to be widened; if it fits in the non-widened closable lid, then it will fit in the widened closable lid. If it worked with the non-widened keyboard base, it will work with a widened keyboard base. However, Claim 1 of the present invention recites a notebook computer with a widened display forming a widened I/O display area that corresponds to the widened keyboard base, where the widened display has a width substantially equal to a width of the widened keyboard base. While *Trane* states that he can use any display device, in fact *Trane* cannot use a display device wider than his keyboard unless he uses the Appellant's claimed invention; a widened display that corresponds to the widened keyboard base.

The Appellant also discussed with the Examiner the definition of the term interposer used in Claims 4, 5 and 6. The Examiner is instructed by the M.P.E.P. § 2111.01 that claims must be interpreted as broadly as their terms reasonably allow. In the context of Claims 4, 5, and 6, the interposer is an interface connection interposer disposed between the interface signal connection means and the I/O device. Clearly, the interposer of Claim 4 is an interposer used for electrical purposes and cannot be interpreted more broadly than stated in Claim 4. The Examiner states that he used the Webster's II definition of interposer as "introduce or insert between parts." The Appellant respectfully asserts that the Examiner recited the definition for the term "interpose." In the dictionary sense, an interposer is "the element which is inserted between parts." The Examiner, in the telephone interview, stated that the contacts 54 teach the interposer of Claim 4. Claim 4 is specific in that it states that the interface connection interposer is disposed between the interface signal connection means (contacts 54 of Trane) and the I/O device (telephone of Trane). FIGS. 3 and 6, cited by the Examiner as teaching the interface connection interposer,

show nothing between contacts 54 and telephone 16 and thus *Trane*, in this recitation, does not teach or suggest the interface connection interposer of Claim 4.

The Appellant respectfully asserts that the above arguments point out how the Specification of the present invention defines terms used in the claim language such that the claimed invention is distinguished from the teachings of *Trane*. The Appellant also respectfully requests that the Examiner reconsider his rejections of the claims of the present invention in light of these arguments and the supporting clarification of specific recitations pointed out in the Specification defining terms.

The Examiner did not change his arguments in rejecting Claims 1-14 under 35 U.S.C. § 103(a) as being unpatentable over *Trane*. Therefore, the Appellant maintains the same arguments against these rejections as previously stated in the response dated June 20, 2003.

To establish a *prima facie* case of obviousness, the Examiner must meet three basic criteria. First, there must be some suggestion or motivation, either in the references themselves or in the knowledge generally available to one of ordinary skill in the art, to modify the reference or to combine reference teachings. Second, there must be some reasonable expectation of success. Finally, the prior art reference must teach or suggest all the claim limitations.

The Examiner rejected Claims 1-10 as being obvious and unpatentable over *Trane* and cites Figures 1-3 and 6 and their respective description sections for support. Claim 1 of the present invention recites a notebook computer with an I/O physical user interface comprising a base containing a keyboard wherein the base has an extended portion beyond the keyboard creating a widened keyboard base, a widened display having a widened I/O display area corresponding to said widened keyboard base wherein the widened display has a width substantially equal to a width of said widened keyboard base. The notebook computer of Claim 1 further has an I/O device area disposed within the extended portion of said widened keyboard and an

interface signal connection means mounted within said I/O device area operable to couple signals from the notebook computer to an I/O device.

Trane discloses a portable computer system modified to include a printer device. It is important to note that one of ordinary skill in the art would understand the difference between the width of the portable computer system (horizontal dimension) when the portable computer is opened for use and the height of the portable computer system (vertical dimension) perpendicular to the horizontal dimension measured when the lid of the portable computer system is closed. In Trane, the portable computer systems incorporating a display device dispose the display device in this lid. Trane discloses a cell phone above the keyboard. If Trane increases the size of the keyboard base to accommodate the cell phone, then the lid would have to increase in the vertical direction. Increasing the lid in this dimension would then allow the display to be modified only in the same vertical direction. Likewise, there would not be a correspondence between the modified keyboard base and the modified display as is recited in the present invention.

Furthermore, the notebook computer of Claim 1 has a base containing a keyboard "wherein said base has an extended portion beyond said keyboard creating a widened keyboard base." The portable computer system of *Trane* does <u>not</u> teach or suggest widening the base containing the keyboard. In fact, in Figure 1, *Trane* attaches a printer device 18 to one side (width) of the keyboard base and a paper tray 20 to the other side. The printer device 18 is a device that is "securable" to the computer system of *Trane* and is not a part of a widened base. The paper tray 20 of *Trane* is integrated within the outer casing 34. See *Trane* column 9, lines 4-11. The outer casing 34 is the keyboard base of Claim 1 of the present invention.

Trane also incorporates an area in the base for a portable telephone but Trane does not teach or suggest an extended portion beyond the keyboard creating a widened keyboard base. Trane does not indicate how the area for the portable telephone is provided, but Trane does not teach or suggest a base containing the

keyboard wherein the base has an extended portion creating a <u>widened keyboard</u> base.

The Examiner states that feature 16 of Figure 1 teaches a widened portion. Feature 16 is a cellular or a satellite phone. See *Trane* column 4, lines 40-49. Feature 16 of *Trane* could be accomplished by reducing the size of the keyboard or the phone itself so that it fits within an existing keyboard base. There is no teaching or suggestion by *Trane* to create a widened keyboard base as set forth in Appellant's claimed invention.

Since Trane does not teach or suggest "a widened base, then it follows that Trane does not teach or suggest a widened display having a widened I/O display area corresponding to said widened keyboard base wherein said widened display having a width substantially equal to the width of the widened keyboard base." The Examiner states that Trane teaches a widened display corresponding to the widened keyboard base and cites Trane, feature 14 of Figure 1. Feature 14 of Figure 1 is a display, however Trane does not teach or suggest that the display is widened. Further, the Examiner states that *Trane* teaches a widened display having a width substantially equal to the width of the widened keyboard base and cites the features 14 and 24 of Figure 1. While the Appellant agrees that the display 14 and the keyboard 24 of Trane have substantially the same width, neither is widened as recited by Claim 1 of the present invention. Trane states that while the display device 14 can be of any size, its preferable size has a horizontal dimension (width) equal to or less than thirteen inches. There are no teachings in Trane for widening the display. Instead, Trane is suggesting that the size of the display be limited to less than or equal to thirteen inches. The reason for this is that *Trane* is teaching something entirely different than the present invention. Trane does not want his invention to require a bigger display. Trane is teaching adding a printer and adding a cell phone that can use the portable computer's power supply and internal, larger cell phone antennae. See Trane, column 2, lines 8-19. Thus, a smaller display requiring less power is more desirable in Trane.

Since Trane does not teach or suggest a widened keyboard base and a widened display having a width substantially equal to the widened keyboard base, Trane does not teach or suggest an I/O device area disposed within the extended portion of the widened keyboard base. There is no room in the portable computer of *Trane* in the width direction. The securable printer of Trane takes one side and the paper tray that is disposed within the keyboard base 34 takes the other side. Claim 1 of the present invention positively recites a widened keyboard base and a corresponding widened I/O display area. As stated earlier, the Appellant asserts that the Examiner is equating the width of a notebook computer with its height. These are two totally different dimensions. For example, if a standard keyboard layout is used, the number of characters incorporated in a row determines the width of the keyboard and the number of rows determines the height. Standard size keyboards have specific sized keys and thus the dimensions (width and height) are determined. To change this, one has to reduce the number of keys or the dimension of the keys. The width of a notebook computer is determined by the keyboard and other functions integrated into the keyboard base. The lid has to cover this area but the display incorporated in the lid does not have to be a certain dimension, it just has to fit into the lid. In Trane, the preferable size for the display device is less than or equal to thirteen inches. Trane does not purposely widen the display area; rather, Trane tries to minimize the width of the display device. Trane teaches away from the invention of Claim 1 where the display is purposely widened to correspond to the widened keyboard base that has an extended width portion to accommodate an I/O device area.

The Appellant has shown that *Trane* does not teach or suggest a widened keyboard base or a widened display area. Therefore, the Appellant respectfully asserts that *Trane* also does not teach or suggest the I/O device area disposed within the extended portion of the widened keyboard base nor does *Trane* teach or suggest an interface signal connection means mounted within the I/O device area of Claim 1. *Trane* does not teach or suggest all the limitations recited in Claim 1 of the present invention. Therefore, the Appellant respectfully asserts that the rejection of Claim 1 under 35 U.S.C. § 103(a) as being unpatentable over *Trane* is traversed.

Amended Claim 2 is dependent from Claim 1 and limits the I/O device area to an area recessed below a surface of the extended portion of the widened keyboard base. Claim 2 contains all the limitations of Claim 1. The Examiner states that *Trane* teaches the invention of Claim 2 and cites feature 46 in Figure 3 of *Trane*. Feature 46 of *Trane* is a recessed area for a cell phone, which is not within an extended portion of the widened keyboard base of Claim 1. The fact that *Trane* teaches a recessed area in the keyboard base does not teach or suggest the invention of Claim 1 with the further limitation that the extended portion of the keyboard base has a particular recessed area. The Appellants have shown that *Trane* does not teach or suggest the invention of Claim 1. Therefore, the Appellant asserts that the rejection of Claim 2 under 35 U.S.C. § 103(a) as being unpatentable over *Trane* is traversed for the same reasons as Claim 1 and for the reasons stated above.

Claim 3 is a dependent claim from Claim 2 and further limits the "interface signal connection means" of Claim 1 to be disposed within the recessed I/O device area. Claim 3 contains all the limitations of Claim 1 and Claim 2. The Examiner states that Trane teaches the invention of Claim 3, and cites "feature of Figure 3" as his basis, without specifically pointing out which particular features of Figure 3 teach the limitation of Claim 3. In Figure 3, *Trane* is illustrating a cell phone 48 and its corresponding receiving opening 46. First, a cell phone is considered a communications device and not an I/O device. The cell phone may communicate with an I/O device; however, one of ordinary skill in the art would not normally associate a cell phone as an I/O device. Secondly, the "cellular telephone receiving opening 46" is not in an extended portion of the keyboard base. Cellular telephone receiving opening 46 is included in access cover 38 and receives "the cellular phone 16 in a snap-fit type or the like manner." See *Trane* column 5, lines 30-32. Likewise, it states in this section of Trane that "the cellular telephone receiving opening 46 is preferably sized and shaped substantially equal to the size and shape of the cellular telephone 16 thereby securely (sic) releasably maintaining the relative position of the cellular telephone 16 within the cellular telephone receiving opening 46." It is clear that Trane is teaching an opening in the access cover 38 that is specifically designed

for a communicating device, a cellular telephone 46. The Appellant respectfully asserts that *Trane* is not teaching or suggesting the invention of Claim 3. The Examiner, after seeing the present invention, apparently concludes that since *Trane* is teaching a cellular telephone receiving opening 46 in the access cover 38, it would have been obvious to extend the keyboard base creating a widened keyboard base, incorporate a widened display with a widened I/O display area corresponding to the widened keyboard base, incorporate an I/O device area within the extended portion of the widened keyboard base and incorporate an interface signal connection means within the I/O device area, wherein the I/O device area is recessed. Clearly this assertion of obviousness is made possible only with knowledge of the present invention and is impermissible hindsight. See M.P.E.P. § 2145 "Arguing Improper Rationales For Combining References." Therefore, the Appellant respectfully asserts that the rejection of Claim 3 under 35 U.S.C. § 103(a) as being unpatentable over *Trane* is traversed for the same reasons as Claim 1 and for the reasons stated above.

Amended Claim 4 is a dependent claim to Claim 2 and adds an interface connection interposer disposed between the interface signal connection means and the I/O device of Claim 1. Dr. Ken Gilleo of Cookson Electronics, "Chip Scale or Flip Scale-The Wrong Question?" (www.cooksonsemi.com/tech art), defines a chip scale interposer as "an electromechanical structure that supplies mechanical and electrical interconnection compatibility between an IC and a printed circuit board. interposer may provide rerouting, testability, handling ease, and environmental protection while facilitating standardization." The Examiner states that *Trane* teaches the invention of Claim 4, and cites "feature of Figure 3" as his basis, without specifically pointing out which particular features of Figure 3 teach the limitation of Claim 4. Figure 3 of Trane illustrates portable computer assembly 10, cellular telephone 16, printer device 18, cellular telephone receiving opening 46, cellular telephone battery pack 48, cellular telephone antenna 50, antenna connection 56, and a protrusion 58. See *Trane*, columns 4, 5 and 6. The Appellant fails to see any feature of Figure 3 that is an "interface connection interposer" as recited in Claim 4. Trane is teaching a cellular telephone receiving opening 46 shaped substantially equal

to the size and shape of the cellular phone 16. Trane expects to connect only one particular communicating device using opening 46 and contacts 54 and thus would have no need for an interface connection interposer. Therefore, the Appellant respectfully asserts that the rejection of Claim 4 under 35 U.S.C. § 103(a) as being unpatentable over Trane is traversed for the same reasons as Claim 1 and for the reasons stated above.

Claim 5 is dependent from Claim 4 and further limits the interface connection interposer to one that is "disposed within said recessed I/O device area" of Claim 2. The Appellant has shown that *Trane* does not teach or suggest any interface connection interposer as recited in Claim 4. Therefore, the Appellant respectfully asserts that the rejection of Claim 5 under 35 U.S.C. § 103(a) as being unpatentable over *Trane* is traversed for the same reasons as Claim 1 and Claim 4.

Claim 6 is dependent from Claim 4 and further limits the interface connection to one that is "operable to compensate for both mechanical and signal routing differences between said interface connection means, said recessed I/O area and said I/O device." The Appellant has shown that *Trane* does not teach or suggest any interface connection interposer as recited in Claim 4. Therefore, the Appellant respectfully asserts that the rejection of Claim 6 under 35 U.S.C. § 103(a) as being unpatentable over *Trane* is traversed for the same reasons as Claim 1 and Claim 4.

Claim 7 is dependent from Claim 1 and defines the widened I/O display area as an area used to display operational data relative to operation of the I/O device when the I/O device is sending signals to the notebook computer. The Examiner states that *Trane* teaches the invention of Claim 7 and cites "feature of columns 9-10 lines 43-6." The Examiner again fails to distinctly point out what in this recitation he regards as teaching the invention of Claim 7. The only reference in this recitation directed to any type of display is in column 9, lines 43-47. In this reference, *Trane* states "additionally, the portable computer assembly 10 of the present invention can include an LCD monitoring display (not shown) on the outer casing form providing

information, e.g., battery status, power on status, speaker status, etc., to the use of the portable computer assembly 10." Claim 1 of the present invention is specific in reciting "a widened display, said widened display having a widened I/O display area corresponding to said widened keyboard base, said widened display having a width substantially equal to a width of said widened keyboard base." The Appellant has shown that *Trane* does not teach or suggest the widened I/O display area of Claim 1. Claim 7 further limits this I/O display area as used to display data relative to operation of the I/O device that is coupled to the notebook computer with the interface signal connection means mounted within the I/O device area that is disposed within the extended portion of the widened keyboard base. In this recitation, Trane states that another LCD display can be added to the outer casing. Trane does not define the outer casing; however, it is clearly not a widened I/O display area as recited in Claim 7 of the present invention. Therefore, the Appellant respectfully asserts that the rejection of Claim 7 under 35 U.S.C. § 103(a) as being unpatentable over Trane is traversed for the same reasons as Claim 1 and for the reasons stated above.

Claims 8 and 9 are dependent from Claim 1 and contain all the limitations of Claim 1. Claim 8 recites that the notebook computer of Claim 1 is operable to execute first communication software instructions for controlling communication between the notebook computer and the I/O device. Claim 9 recites that the notebook computer of Claim 1 is operable to execute second communication software instructions for controlling communication between the notebook computer and the I/O device. The Examiner states that *Trane* teaches "first/second communication software instructions controlling communication between said notebook and said I/O device and cites "feature of columns 9-10, lines 43-46. The Examiner again fails to distinctly point out what in this recitation he regards as teaching the invention of Claims 8 and 9. The Appellant has shown that *Trane* does not teach or suggest the notebook computer of Claim 1. Therefore, the Appellant asserts that *Trane* does not teach or suggest the notebook computer of Claim 1 with the limitations of Claims 8 and 9. Therefore, the Appellant respectfully asserts that the rejections of Claims 8

and 9 under 35 U.S.C. § 103(a) as being unpatentable over *Trane* is traversed for the same reasons as Claim 1 and for the reasons stated above.

Claim 10 is dependent from Claim 1 and contains all the limitations of Claim 1. Claim 10 further limits the I/O device of Claim 1 to having functionality wholly separate from any communication signaling or connection with the notebook computer. The Examiner states that *Trane* teaches the invention of Claim 10 and cites feature 48 of Figure 3. Feature 48 is a battery pack and *Trane* suggests that cellular telephone 16 (communication device) is operable when not coupled to portable computer 10. However, cellular telephone 16 is a communication device and not the I/O device recited in Claim 1 of the present invention. The Appellant has shown that *Trane* does not teach or suggest the notebook computer of Claim 1 of the present invention. Therefore, the Appellant asserts that the rejection of Claim 10 under 35 U.S.C. § 103(a) as being unpatentable over *Trane* is traversed for the same reasons as Claim 1.

The Examiner has explicitly stated that *Trane* teaches all the basic claimed limitations of Claims 1-14. However, the Examiner then states that relative to Claims 1-10, the difference between the claimed invention and teachings of the *Trane* reference is that the reference does not identically or expressly teach the claimed limitation of "widened display." Notebook computers are designed to be as small as possible for both form factor and cost reasons. Displays are expensive and the cost for larger displays increases non-linearly with display size. *Trane* expressly teaches that his "novel portable computer assembly 10" is "comparable in size and price to the conventional portable computer." The present invention is teaching widening the display. Whatever the size of the notebook computer, the present invention "widens" the display so that the notebook of the present invention would never be comparable in size and price to the "conventional" portable computer. The reason is that the display on the notebook computer of Claim 1 is "widened." Just because particular prior art could be modified to use a widened display does not mean that it teaches or suggests Appellant's claimed invention. The fact that one of ordinary skill in the art

would be capable of making the claimed invention of Claim 10 is not sufficient by itself to establish *prima facie* obviousness. M.P.E.P. § 2143.01. Therefore, the Appellant respectfully asserts that simply choosing to incorporate a display whose size is determined by the designer does not lead to the invention of Claim 1. It simply leads to a notebook computer with a particular display size. Therefore, the Appellant asserts that the Examiner's statement that the widened display of Claims 1-10 is an obvious design choice is traversed for the reasons stated above.

Claims 11-14 recite method steps for interfacing an I/O device to a notebook computer. The Examiner states that Claims 11-14 are not patentably distinct from Claims 1-10 and that the teachings of the claims 1-10 are similarly applied. Claims 11-14 recite method steps for interfacing an I/O device to a notebook computer and Claims 1-10 recite a notebook computer. The notebook computer of Claims 1-10 has features that employ method steps of Claims 1-10 and as such are both patentable. To the extent that the notebook computer of Claims 1-10 explicitly implement a method step of Claims 11-14, the Appellant has already shown that *Trane* does not teach or suggest these limitations. Therefore, the Appellant asserts that the rejections of Claims 11-14 under 35 U.S.C. § 103(a) as being unpatentable over *Trane* is traversed for the same reasons as Claims 1-10.

The Examiner did not change his arguments in rejecting Claims 1-14 under 35 $U.S.C. \ \S \ 103(a)$ as being unpatentable over *Trane* in view of *Saegusa*. Therefore, the Appellant maintains the same arguments against these rejections as previously stated in the response dated June 20, 2003.

2. Claims 1-14 are not properly rejected under 35 U.S.C. §103(a) as being unpatentable over *Trane* in view of U.S. Patent No. 5,568,224 to *Saegusa* (hereafter "Saegusa").

The Examiner has stated that *Trane* does not expressly teach the claimed limitation of a "widened display." The invention of Claim 1 widens the display over what is needed for a standard display function. Claim 1 recites a notebook computer

with a widened display, the widened display's relationship to a base for containing a keyboard which has be extended beyond the keyboard to form a widened keyboard base, the widened display's relationship to an I/O device area disposed within the extended portion of the widened keyboard base and the widened display's relationship with an interface signal connections means mounted within the I/O device area for coupling signals between the notebook computer and an I/O device. The fact that a notebook computer is capable of utilizing a wide screen display is a factor that supports that the present invention is enabled but by itself does not in any way render the invention of Claim 1 as being obvious. The Examiner rejected the portion of Claim 1 reciting a "widened display" as being obvious over Trane because Trane states that the invention may use any size display according to the designer's choice. While it may be the designer's choice to use a small or large screen display, the result of that choice does not produce a device with the same limitations as Appellant's claimed invention. Case law has held that a claimed invention may be rendered obvious if the claim is directed to a feature that is a simple matter of design choice (e.g., the position of a switch that does not modify the operation of a device). See In re Kuhle, 526 F.2d 553, 188 U.S.P.Q. 7 (CCPA 1975). Also see M.P.E.P. § 2144.04 C (Rearrangement of Parts). Claim 1 of the present invention does not simply recite a wide screen display, rather, it recites a widened display in relationship to other elements. It is the combination of elements that renders Claim 1 non-obvious over the prior art.

The Appellant has shown that *Trane* does not teach or suggest the limitations of Claims 1-10. Those arguments as stated above are included by way of reference in support of the Appellant's arguments regarding the combination of *Trane* and *Saegusa*. The Examiner then states that *Saegusa*, column 2, lines 51-53, teaches "notebook 3 capable of wide screen display based on a dot LCD and incorporates a communication function." The Examiner states that "this is another/additional more specific support/evidence of the Examiner's 103 motivation 'obvious design choice' rationale." *Trane* discloses a notebook computer capable of attaching a printer to the side of the notebook and capable of holding a cell phone communication device

above the keyboard. Trane does not teach or suggest any of the other limitations or relationship between elements recited in Claim 1 of the present invention. Adding a different display to Trane simply results in the invention of Trane with a different display. The invention of *Trane* is not dependent on any particular display; therefore, the display type does not matter, thus the use of a particular display is a "design choice" for the invention of *Trane*. This is the case with Claim 1 of the present invention; therefore, the Examiner's argument of design choice does not apply. Saegusa discloses a system for setting data of a camera. Saegusa is concerned about a camera that has set data for controlling the function of the camera body (f-stops, exposure times, zoom, etc.). Set data can be applied to the camera from buttons on the camera body or by attachments connected to the camera body (e.g., an electronic notebook 3). The invention of Saegusa, like the invention of Trane, is not dependent on any particular display; therefore, the display type does not matter. Thus, the use of a particular display is a "design choice" for the invention of Saegusa. The fact that Saegusa makes the statement that an electronic notebook "is also connectable via a connection cable to the camera body" (See Saegusa column 2, lines 20-22) and is "capable of wide screen display based on a dot LCD and incorporates a communication function" (See Saegusa column 2, lines 51-53) does not render the notebook computer of Claim 1 obvious. There are no teachings or suggestions in Trane or Saegusa, singly or in combination, that would lead someone of ordinary skill in the art to arrive at Claim 1 of the present invention. Therefore, the Appellant respectfully asserts that the rejections of Claims 1-14 under 35 U.S.C. § 103(a) as being unpatentable over *Trane* in view of *Saegusa* are traversed.

IX. CONCLUSION

For the reasons noted above, the rejections of claims 1-14 are in error. Appellant respectfully requests reversal of the rejections and allowance of claims 1-14.

Respectfully submitted,

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APPENDIX

1. (Original) A notebook computer with an input/output (I/O) physical user interface comprising:

a base containing a keyboard for said notebook computer, wherein said base has an extended portion beyond said keyboard creating a widened keyboard base;

a widened display, said widened display having a widened I/O display area corresponding to said widened keyboard base, said widened display having a width substantially equal to a width of said widened keyboard base;

an I/O device area disposed within said extended portion of said widened keyboard base; and

an interface signal connection means mounted within said I/O device area, said interface signal connection means operable to couple signals from said notebook computer to an I/O device.

- 2. (Previously Amended) The notebook computer of claim 1, wherein said I/O device area is recessed below a surface of said extended portion of said widened keyboard base, said recessed I/O device area operable to receive said I/O device.
- 3. (Original) The notebook computer of claim 2, wherein said interface signal connection means is disposed within said recessed I/O device area.
- 4. (Previously Amended) The notebook computer of claim 2, wherein an interface connection interposer is disposed between said interface signal connection means and said I/O device.
- 5. (Original) The notebook computer of claim 4, wherein said interface connection interposer is disposed within said recessed I/O device area.

- 6. (Previously Amended) The notebook computer of claim 4, wherein said interface connection interposer is operable to compensate for both mechanical and signal routing differences between said interface signal connection means, said recessed I/O area and said I/O device.
- 7. (Original) The notebook computer of claim 1, wherein said widened I/O display area is used to display operational data relative to operation of said I/O device when said I/O device is sending or receiving signals to said notebook computer.
- 8. (Original) (The notebook computer of claim 1, wherein said notebook computer is operable to execute first communication software instructions, said first communication software instructions controlling communication between said notebook computer and said I/O device.
- 9. (Original) The notebook computer of claim 1, wherein said I/O device is operable to execute second communication software instructions, said second communication software instructions controlling communication between said notebook computer and said I/O device.
- 10. (Original) The notebook computer of claim 1, wherein said I/O device has functionality wholly separate from any communication signaling or connection with said notebook computer.
- 11. (Original) A method of interfacing a I/O device to a notebook computer, comprising the steps of:

providing said notebook computer with a widened display and a widened keyboard base, said widened keyboard base having an I/O device area;

providing a signal connection means within said I/O device area;

coupling signals from said I/O device to I/O circuitry in said notebook computer, said I/O circuitry operable to couple signals from said I/O device to a central processing unit (CPU) in said notebook computer;

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activating communication software, said communication software operable to control communication between said CPU and said I/O device; and

activating display software, said display software operable to execute instructions directing the display of input or output data relevant to said I/O device in a widened portion of said widened display.

- 12. (Original) The method of claim 11, further comprising the step of operating said notebook computer and said I/O device together in response to user commands entered via said notebook computer or via said I/O device.
- 13. (Original) The method of claim 11, wherein said widened display has a width substantially equal to a width of said widened keyboard base.
- 14. (Original) The method of claim 11, wherein said I/O device has functionality wholly separate from any communication signaling or connection with said notebook computer.

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